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ABSTRACT

This handbook spells out the steps necessary in an effective evaluation of secondary/transition interventin projects for handicapped youth. Initial steps in the evaluation process include describing the evaluation setting, identifying evaluation audiences, stating the evaluation rationale, determining evaluation questions, and identifying evaluation constraints. Subsequently, planning and implementing the evaluation involves determining evaluation approaches and methods, collecting the data, and analyzing the data. Well-written reports are then needed to document program results, provide a framework for replication and/or extension of the program, respond to stakeholder needs, and serve as a point of departure for program improvement. Throughout this evaluation guide, examples are included from current projects to illustrate how evaluation issues can be approached and resolved. Appendices contain worksheets and an annotated bibliography of 23 items. (JDD)

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A Handbook for Evaluating Secondary/ Transition Projects for Handicapped Students

Technical Assistance Component
Secondary Transition Intervention Effectiveness Institute

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September 1986

Center for Educational Studies
Research Triangle Institute
Research Triangle Park, North Carolina

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FOREWORD

This Evaluation Handbook for secondary/transition intervention projects is designed to serve as a guide for project staff who conduct evaluations as part of their responsibilities in meeting grant regulations for accountability. In addition, technical assistance (TA) staff hope that the Handbook will serve as a resource guide for projects as they assess their effectiveness, and improve their programs or components, and report on their programs to their many constituencies.

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CHAPTER 1
INTRODUCTION

On December 2, 1983, the United States Congress revised and extended the Education of the Handicapped Act through a series of amendments, Public Law (PL) 98-199. These amendments authorized grants for secondary education and transitional services for handicapped youth (Sec. 626), which were to include demonstration models, exemplary service delivery models, and cooperative models between educational agencies and adult service agencies. These grants were to be coordinated with projects operating under Section 311 of the Rehabilitation Act of 1973. Postsecondary education programs also were eligible to receive grants under Section 625 of PL 98-199, as were research and demonstration projects to help special education personnel, related services personnel, and "other appropriate persons, including parents, improve the education and related services for handicapped children and youth" (PL 98-199, Sec. 641.a). These projects represent secondary/transition intervention projects (model programs) for which this Evaluation Handbook has been designed.

The legislation for the model programs required program evaluations (PL 98-199, Sec. 618); and in subsequent regulations for grant awards, it was stated that the Secretary would review each application to assess the quality of its evaluation plan (Federal Register, Vol. 49, No. 123, Monday, June 25, 1984, p. 25993). These regulations reinforced the importance of evaluation, not only for reporting to Congress but also for project management and planning. This Handbook is designed to facilitate project responsiveness to the federal government and project capability regarding project evaluation.

Evaluation is the process of determining the worth of something. It includes obtaining information for use in judging the overall worth of a project or of specific project components, objectives, etc. Evaluation also enables program personnel to assess the extent to which program goals and objectives have been attained. Additionally, it provides information for improving less successful elements of a project and for extending effective practices. Evaluation can assist in communicating impact information to people interested in the program's outcomes, whether they be youth employment,

postsecondary training, dissemination of strategies, or cooperative agreement among agencies. And, a well-documented evaluation can provide a basis for replication of the program.

Given the multitude of potential uses of an evaluation, it should be clear that there is no such thing as the "perfect" evaluation. Rather, like providing individualized intervention to a specific project client/consumer, evaluations need to be individually tailored to each project's evaluation needs, goals, abilities, and resources. This means that project staff must determine what they want/need from an evaluation and balance this with the personnel, time, and budget available for an evaluation. The result may be a one- or two-day effort, or a three-year process in which all staff associated with the project are involved. Whatever the scope and/or complexity, evaluation is both important and difficult to do well. Thus, we (the authors) hope that this Handbook is of assistance to project staff as they face the challenge of conducting a useful evaluation within the practical constraints of their mission and funding.

Since this Evaluation Handbook is designed specifically for transition projects, we have included examples from current projects to assist the evaluator in the translation for the processes we discuss to their individual setting. The examples are presented in the following format to afford ready access as well as to avoid discontinuity in the text itself.

EVALUATION SETTING: PROJECT RATIONALE

In Minneapolis a postsecondary project is based on the belief that learning disabled adults in mainstream postsecondary settings need long-term modifications to their writing process. . .

PROJECT STAKEHOLDERS

The audience/stakeholders identified by staff at the Fort Collins project are: OSERS staff, state legislators, state agency staff . . .

EVALUATION RATIONALE

In Bloomington, Indiana, Project COMPETE is a cooperative project that is designed to . . .

The purpose of the evaluation is to answer two related questions: (1) . . . (2) . . .

These examples will illustrate how project evaluation issues can be approached and resolved. Evaluators reading this material will need to tailor it to their particular project setting and evaluation needs, draw upon their resources, and not be reluctant to question and be innovative. This becomes particularly important when programs are modified. Such modifications generally necessitate modifications in the evaluation plan. It is important to note that evaluations, more often than not, emerge by way of an iterative process. Again, there is no such thing as a "perfect" evaluation.

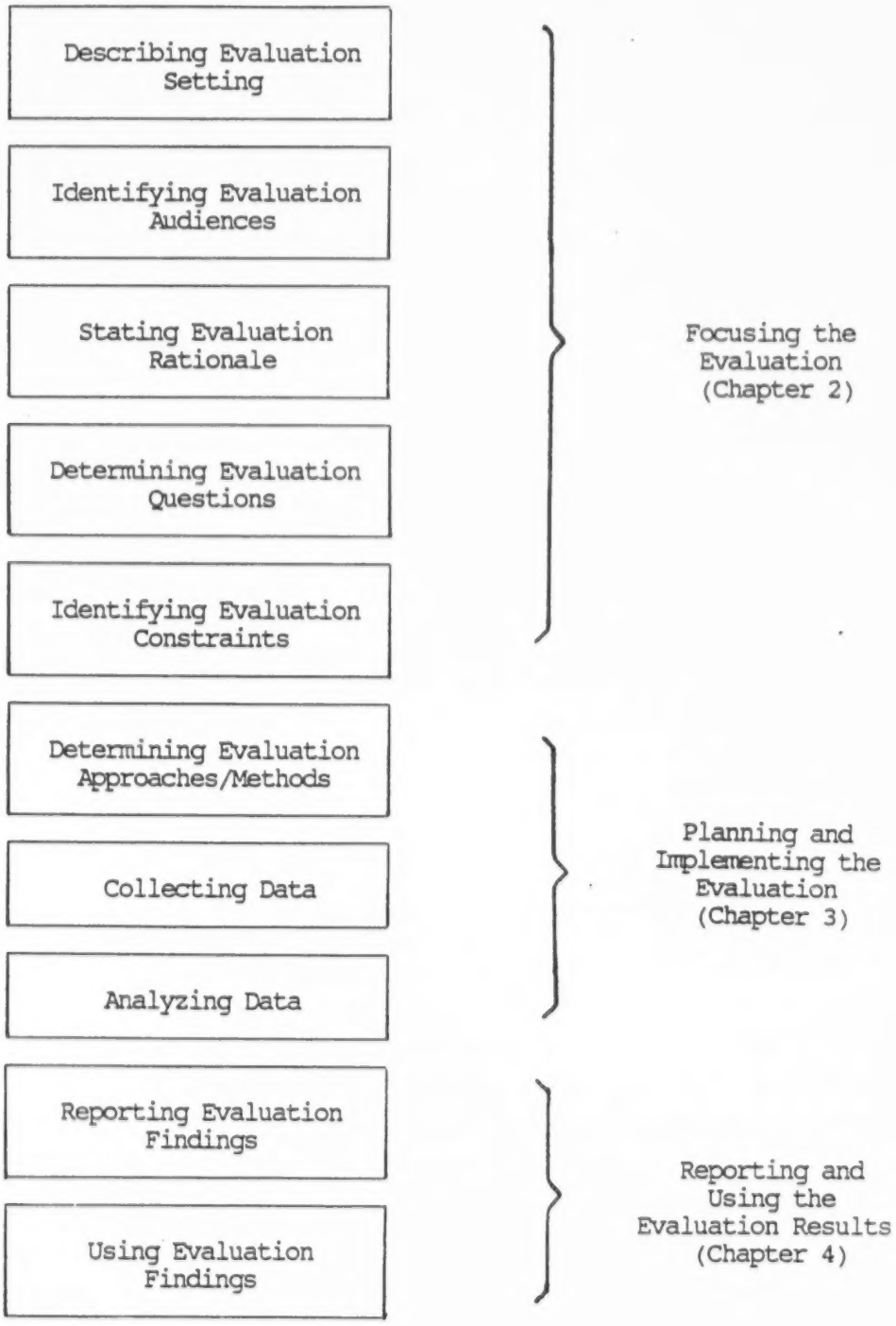
Nonetheless, there are systematic logical steps that are generally recognized as essential in the evaluation process. These are presented schematically in Figure 1 on the following page. Topics included in the process are discussed, with major emphasis on

- Focusing the evaluation,
- Planning and implementing the evaluation, and
- Reporting and using the evaluation results.

To some, with limited resources for evaluation, these ten distinct steps may appear formidable. However, knowledge of the systematic steps involved in a formal evaluation will undoubtedly assist those projects which do not have specific or large evaluation budgets to sit down and document what services were provided, who was served, and what outcomes were attained.

Chapter 2 addresses the initial steps in the evaluation process. In order to <u>focus</u> an evaluation so that the results of the evaluation are the most relevant and useful, certain sequential steps should be taken. These steps include a thorough description of the evaluation settings, the identification of the audience/stakeholders for the evaluation results, a statement of the

Figure 1. Steps in the Evaluation Process



evaluation rationale, a determination of the most relevant evaluation questions, and the identification of constraints impinging upon the evaluation process.

Chapter 3 discusses considerations and guidelines for planning and implementing the evaluation. An overview of how to select and apply the most appropriate method of evaluation is presented. The development of an evaluation management plan to structure the evaluation process and suggestions regarding data collection are found in this chapter.

Chapter 4 discusses planning the presentation of results, reporting results, and using the results of the evaluation. The best executed evaluation is incomplete without well written reports to document program results, to provide a framework for replication and/or extension of the program, to respond to stakeholder needs, and to serve as point of departure for program improvement.

An annotated bibliography is provided in Appendix A; worksheets for the material covered in Chapters 2 through 4 are presented in Appendices B (Chapter 2), C (Chapter 3), and D (Chapter 4).
a probability sample of clients rather than all clients would be appropriate for this project. Similarly, projects that encounter cost or time constraints may need to consider utilizing a sample of clients in lieu of a complete census of clients. Personnel collecting the data should be trained to select the sample in accordance with a pre-determined sampling protocol (in most cases a simple random sample will suffice) and properly administer the instruments in order to ensure that the collected data are reliable and valid.

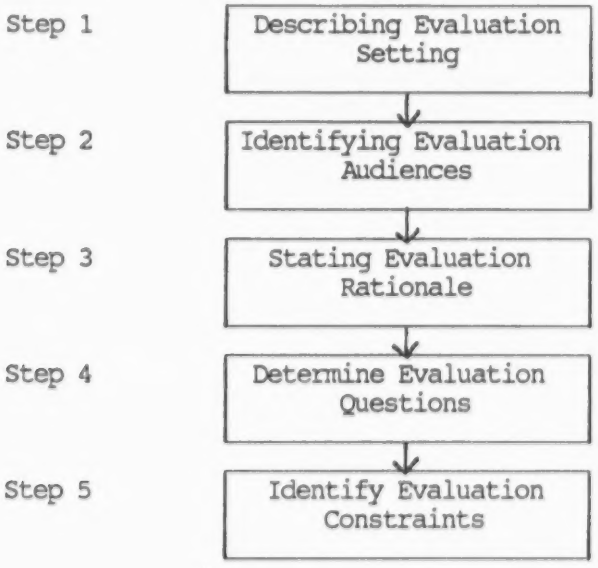
CHAPTER 2

FOCUSING THE EVALUATION

Evaluations that are most useful and meaningful have direction and purpose. They reflect thoughtful, systematic planning that insures responsiveness to constituencies and has implications for future program decision-making.

Secondary/transition projects in particular should have well-designed, focused evaluation plans. The lack of knowledge among the general public about these projects and the need for effective, replicable program designs for agencies and institutions attempting to implement secondary/transition projects make it incumbent upon those projects already in place to share their successes and shortcomings. Only in this way can advances be made in enriching the lives and expanding the opportunities of individuals with handicaps. Through the dissemination of well-documented project evaluations that substantiate effective practices, potential employers, sponsoring agencies, advocates and handicapped youth/adults (and their families) can be alerted to new ideas that enhance businesses, communities, and individual lives.

This chapter addresses five steps which should be taken to <u>focus</u> a secondary/transition evaluation. They are:



The process begins by describing the setting (Step 1) of the specific transition project. By setting, we mean the context in which the project exists and functions. It consists of the environment, plus project purpose, operational procedures and resources. With the description of the evaluation setting, it is sound evaluation planning to identify the audience (Step 2) and involve those audiences most directly affected by the evaluation results. In this way, they become "stakeholders" and will be more likely to understand and use the evaluation results. Once a comprehensive picture of the project and its setting is in place, and the audiences have been identified you can determine the rationale (Step 3) for the evaluation. The rationale determines in large part which evaluation methodology you should use. The concerns of the stakeholders and the project personnel should determine potential evaluation questions (Step 4). The determination of the questions should be relatively straightforward. At this point evaluation constraints (Step 5) should be identified as well as their likely impact upon the evaluation. The principal constraints deal with such factors as budget, timeframe, agency regulations, and political considerations.

A. Step 1: Describing the Evaluation Setting

Planning to evaluate a secondary/transition project should begin with a complete description of the project. The description clarifies project rationale, goals and objectives; specific project components and operations; explains personnel roles and responsibilities, project resources; and describes the context of the project within the host organization, system and/or community.

1. Project Rationale

The project rationale explains the controlling, underlying principles on which the project is based. Put simply, it answers the questions as to why the project was undertaken.

PROJECT RATIONALE

In Minneapolis a postsecondary project is based on the belief that learning disabled adults in mainstream postsecondary settings need long-term modifications to their writing process that enable them to successfully meet the writing demands in both academic and occupational settings. Typically, however, "stop-gap" measures of peer tutors or remedial lab workers are all that is provided to assist them complete the writing courses and/or writing assignments required to successfully complete a degree or occupational certificate program. Such intervention is not likely to assist learning disabled adults acquire the skills to produce clear, concise and coherent written pieces. On the other hand, anecdotal information in the literature and recent but limited intervention in the General College of the University of Minnesota have shown that using a multi-media curriculum in writing is a very promising approach to help students acquire the much-needed skills.

2. Project Goals

Project goals extend the rationale and reveal what a project is trying to accomplish. Goals are best stated in terms of general desired outcomes.

PROJECT GOALS

The Minneapolis project has as its overall goal "the development, testing, implementation, evaluation, and dissemination of varied-media curricula in writing for mainstreamed learning disabled postsecondary students, with transition-to-work orientation." The curriculum is to be generic and easily replicable by other academic institutions.

3. Project Objectives

Project objectives add concrete detail to project goals by stating what specific outcomes are desired.

PROJECT OBJECTIVES

The specific, measurable objectives in the Minneapolis goal are:

- Increase the retention and academic performance levels of mainstreamed learning disabled postsecondary students.
- Increase the ability of learning disabled postsecondary students to use varied media, including word processing, to communicate effectively in writing.
- Increase awareness of communication-related employment adaptations available to learning disabled persons to facilitate transition-to-work.
- Disseminate knowledge and findings in a timely, effective way with the goal of supporting replication and adaptations to other settings.

4. Project Operations/Activities

Project operations/activities are those formal and informal procedures and rules used in a project. They describe project implementation by project staff: who does what in the project, and how they do it. A list of project operations/activities could include:

- Client selection and assessment procedures,
- Service delivery procedures,
- Employer contact procedures,
- Formal and informal project rules and norms,
- Project planning and management,
- Personnel management, and
- Project financial management procedures.

PROJECT OPERATIONS/ACTIVITIES

The eight key activities of the Minneapolis project are the:

(1) Creation of a research base in writing and computers, composition for LD adult students, and related areas;
(2) Translation of research findings into a curriculum plan for varied-media offerings in a writing course;
(3) Identification of 20-24 LD students each year to participate in the project;
(4) Implementation of the intervention writing syllabus in both courses;
(5) Enrollment of participants in a career planning course, during which their interests/aptitudes are assessed, career networking is done, and a career/ goals/academic planning contract is drawn up;
(6) Evaluation of project activities;
(7) Dissemination of evaluation results;
(8) Planning is done for the following year based on research and evaluation results.

5. Project Resources

In addition to operations/procedures, projects use various resources in pursuing their goals and objectives. Resources directly linked to project success are an important part of the project description, such as:

- staff qualifications,
- funding sources and amounts, and
- community resources available to the project.

Project resources are mechanisms to achieve project goals and objectives. It is important to identify resources essential to project success. A list of resources would include the following:

- project staff and their responsibilities,
- physical environment/site, and
- equipment, materials, and supplies.

A sample description of one of the project resources is presented below.

PROJECT RESOURCES: STAFF

The staff of the Minneapolis project consists of a director/lead teacher/ disseminator, an LD consultant specialist, an evaluator, a research assistant, a secretarial assistant, and tutors. The director/lead teacher/disseminator has demonstrated ability as a teacher of writing and is well-acquainted with adoptive media for LD adult learners. The LD consultant's background is special education and knowledge of the employment needs and difficulties of LD adults.

6. Project Context

The final and very important part of the project description is the project context. It is defined as the setting of the project, such as whether it is located in a university or in a private agency. The context often determines how the project is set up and how it operates. Services provided by a private agency, for example, may be inappropriate within a university. A context description could include the following:

- Other organizations and agencies serving the handicapped and jobless, and their relationship to the transition project,
- The local economy, especially types of industries and employment opportunities,
- Unemployment rates and trends,
- Public transportation, and
- Community support for the project.

PROJECT CONTEXT

The Minneapolis project is located in the General College of the University of Minnesota; the College is a 50-year-old open admissions college within this major research university. The College has a history of offering programs and curriculum that have served as models for many community colleges and postsecondary institutions. It is a testing ground for undergraduate lower division curriculum and also has a history of testing and disseminating curriculum for "bypassed populations," e.g. learning disabled students. The number of learning disabled persons on the campus of the University of Minnesota alone is growing, from 14 in 1978-79 to 79 in the fall quarter of 1985 - a 560% increase. All these students are in programs that require either the successful completion of writing courses or demonstration of writing proficiency. Additionally, the workplace is increasingly communication-intensive, according to the Department of Labor's Occupational Outlook Handbook.

The importance of a complete description of the project cannot be overemphasized. It is needed to plan any evaluation of the project. It is through the project description that the reader fully understands the project in operation. It also enables replication of successful projects elsewhere.

B. Step 2: Identifying Evaluation Audiences

A complaint leveled against many evaluations is that they ask questions nobody cares about and provide answers nobody can use. This situation can be minimized by ensuring, from the start of the evaluation, that those individuals having a direct interest in the project--the project stakeholders--participate in the evaluation. This can be done by determining what information stakeholders want from the evaluation (and when they want it). At this point a sense of reality and balance must enter into the evaluation plan. It is important not to attempt to satisfy the information needs of more audiences than the project can afford in terms of resources and time. Stakeholders also can serve as important reviewers of the evaluation methodology, offering advice on topics such as prioritizing

proposed evaluation questions and how best to frame them. Stakeholders may also review data analysis plans, be involved in discussions of preliminary evaluation findings, and discuss reporting techniques.

Several groups and individuals could be included in a project's evaluation audience:

- Project clients,
- Parents/guardians of project clients,
- Agencies participating in the project,
- Project staff,
- School staff,
- Employers,
- Advisory group personnel,
- Sponsoring agency personnel,
- Local decisionmakers (e.g., vocational education director, rehabilitation services agency director, school superintendent),
- Project content specialists (e.g., curriculum personnel, evaluation staff), and
- Others (e.g., legislators, potential adoptees).

In addition to information needs, the evaluator should be aware of the project roles and responsibilities, and biases, of stakeholders. This will help decide how much effort should be devoted to satisfying those needs. Priorities have to be set. Information needs of stakeholders far removed from direct project operations, for example, may be assigned a lower priority than the needs expressed by those stakeholders responsible for service delivery. The latter group probably would make more immediate use of the evaluation results. Higher priority stakeholders may have needs addressed throughout the project duration while lower priority audiences may receive information during a second or third year of the project period. If at all possible, some consistent flow of information to all stakeholders is most desirable. A monthly update or quarterly newsletter may be vehicles for this communication.

PROJECT STAKEHOLDERS

The Setting

In Fort Collins, Colorado, a project serves moderately-severely disabled persons who are unemployed, under-employed, or "at-risk" for employment. The project provides a combination of interagency and ongoing employer linkages and intervention with the target youth and adults. Additionally, the project (located at Colorado State University) will train students as vocational evaluators and trainees.

The Stakeholders

The audiences/stakeholders identified by staff at the project are: OSERS staff, state legislators, state agency staff, staff of potential funding sources (including state agencies), university faculty and students, staff at potential replication sites, the project Advisory Council, project administrators and staff, public school staff, employers, consumers, and parents.

The many stakeholders identified clearly have different information needs that are specified below. OSERS staff is a stakeholder group that will receive nearly all information about the evaluation. On the other hand, university faculty and students at Colorado State University are the target audience on evaluation information and data about pre-service training of graduates and under-graduates to assure direct service roles in community-based vocational programs for persons with disabilities. Consumers and their families are to receive evaluation information about the development of community employment and training opportunities, the establishment of linkages between project staff and existing service agencies, the number/proportion of consumers placed in meaningful community employment, and the extent to which consumers have been trained and supported (measured by consumer/employer satisfaction). Consumers and their families may not receive evaluation information on the preparation of the CSU students, on project dissemination efforts out of state, the establishment of service linkages, or project influence on CSU course content.

C. Step 3: Determining the Evaluation Rationale

There are numerous reasons for evaluating secondary/transition intervention projects. The project director may want to know, for example, if project services are reaching those who are most needy or if activities that appear to be of minimum effectiveness should be continued. Regardless of the reason, it is important that everyone involved directly in the evaluation share an understanding of why the project is being evaluated. An evaluation may be a single or multiple purpose study. Some of the reasons for evaluating a transition intervention project include:

- Meet the funding agency's requirements for an evaluation,
- Identify the characteristics of those persons who are receiving services,
- Measure project impact and cost-effectiveness,
- Produce information useful for project replication,
- Identify project improvement initiatives,
- Reveal any project side-effects,
- Uncover any unmet needs, and
- Aid the improvement of adaptive equipment.

The evaluation rationale will determine in large part the appropriate methodology to use. For example, project management can be evaluated using a management by objectives schema to ensure that project tasks are being completed on-time and on-budget. In determining the rationale for your project evaluation, you also should determine what types of information are needed/desired by the stakeholders (see Step 2), for what reasons, and at what time. The information needs of the project's stakeholders often shape the rationale.

EVALUATION RATIONALE

The Setting

In Bloomington, Indiana, Project COMPETE is a cooperative project that is designed to develop and implement a cooperative and coordinated approach to effectively train youths aged 16-22 with severe handicaps so that they can be expected to maintain competitive employment. This project focuses on establishing formalized linkages among a public school system, a community-based rehabilitation center, and other community-based agencies to insure an integrated continuum of services that enable severely handicapped youths to obtain and keep competitive employment. The role of the school system will be to provide vocational exploration, training in work habits/attitudes, work experience, and training in clusters of related skills; the role of the rehabilitation agency will be to provide job-related training, support services when clients are placed in jobs, and to identify/coordinate services to be provided by other agencies. The project is designed to demonstrate how rehabilitation centers can serve as transition agents in this system, to validate/replicate processes that enable such agencies and the public school system to form linkages, and to validate a staff development program that provides interdisciplinary training for both rehabilitation facility and public school staff so the project model can be successfully implemented.

The Evaluation Rationale

The purpose/rationale of the evaluation is to answer two interrelated questions: (1) does the development and implementation of the community-based rehabilitation model meet project objectives, and (2) does the rehabilitation center model implemented at each field site address the needs of local clients and service providers? In order to answer these questions, the evaluation will assess the project's adequacy in addressing the needs of its clients (unmet needs; project replication information), the relation between intended and actual implementation (project improvement), the impact on clients and goals attained by the project, and the project's efficiency in terms of costs and benefits.

D. Step 4: Determining Evaluation Questions

Once a thorough project description is developed, the evaluation audiences are identified, and the evaluation rationale is established, the step of determining evaluation questions is relatively straightforward.

The information needs of the project's stakeholders largely should determine the evaluation questions, since the evaluation should respond to those needs. In addition, project evaluators may be interested in collecting other information to answer questions about program components. They may be interested in applying a new evaluation technique (e.g., interview guide) to find out if it works well in the project setting. Another source of evaluation questions might be current theory about effective transition intervention practices.

Each evaluation question should be:

- Relevant (provide meaningful information for the project being evaluated),
- Measurable (there must be an identified mechanism for obtaining the information so as to obtain a meaningful answer to the question of interest), and
- Achievable (the question must be answerable within the resources and timing available for the evaluation).

As stated earlier, evaluation questions should be limited to a manageable number. To assist in the final selection of evaluation questions, apply the above criteria to each question and then rank order the evaluation questions in order of importance. Determine the evaluation audiences for each question and the potential impact of the data obtained in response to each question. Then, select as many of the questions as are manageable.

The development of evaluation criteria for each question should further refine the evaluation questions. These criteria should specify the level of expected performance and/or due date for each evaluation question. For example, if there is to be a student selection process, the expected date for completion of this process and the anticipated number of students to be screened and selected should be specified. Likewise, if client placements are the focus of an evaluation question, the number of students to be placed and anticipated placement dates (e.g., within 90 days of program entry; within 15 days of skills training) should be specified.

EVALUATION QUESTIONS AND CRITERIA

The staff at the Fort Collins project identified 5 formative evaluation questions, i.e., questions related to project monitoring/improvement, and 4 summative evaluation questions, i.e., related to project outcomes. Two of these questions, audiences, criteria, responsible staff person, and completion date are in the matrix below.

	EVALUATION QUESTION	
	1. What gaps exist in vocational services for persons with disabilities in the Fort Collins area?	2. How many and what proportion of consumers have been placed into meaningful community employment?
STAKEHOLDERS/ AUDIENCES	OSERS Replication Sites Various State Agencies (Dept. of Education; Division of Rehabilitation; Division of Developmental Disabilities	OSERS Consumers Families Advisory Panel Replication Sites State Agencies Local/State Funding Sources
CRITERIA	Expressed need documented by project staff from specific sources (ARC, consumers, rehabilitation center)	70% year 1 consumers still employed as of 8-30-88 80% year 2 consumers still employed as of 8-30-88 90% of year 3 consumers still employed as of 8-30-88
STAFF PERSON RESPONSIBLE	Project Director	External Evaluator
DATE OF COMPLETION	February 1, 1986	August 30, 1988
DATA COLLECTION STRATEGY	Meetings/discussions with local service systems, families, and consumers; documentation of needs expressed.	Follow-up with consumers through direct contact, telephone interview, employer interview.

An important part of the evaluation question screening process involves considerations of the constraints that may limit the evaluation.

E. Step 5: Identifying Evaluation Constraints

As indicated, planning an evaluation should take into account constraints that can affect the evaluation. Identifying the relevant constraints and assessing their likely impact upon the evaluation are key steps in determining which evaluation approach is feasible. Several potential constraints are listed below:

- Agency Regulations: several agencies may be involved in the evaluation process, each with their own guidelines or procedures for conducting evaluations and reporting results;
- Protection of Human Subjects: moral, ethical and legal guidelines for protection of the rights of human subjects should be followed;
- General evaluation standards: criteria for a valid evaluation methodology including valid measurement, systematic data control, appropriate data analysis procedures, justifiable conclusions, and objective reporting are followed;
- JDRP Evaluation Standards: specific criteria set by the Joint Dissemination Review Panel to determine exemplary project status are observed if JDRP approval is sought;
- Personnel: availability and evaluation skills of project staff;
- Resources: availability of resources earmarked for project evaluation;
- Timing constraints: availability of time to complete the evaluation; and
- Political constraints: any limits either on the evaluation's questions, or on the methods that can be used to answer them.

Sometimes constraints do not arise until the evaluation effort is well underway, and political constraints may arise during reporting time. Every attempt should be made to anticipate evaluation constraints and address them early on; however, if constraints do occur near the reporting stage of the project, every attempt should be made to ensure an open, honest evaluation and reporting effort. Third-party evaluators are seen as one method

for encouraging this "freedom" in evaluation, although objective internal evaluators can be expected to conduct fair evaluations.

Appendix B provides completed worksheets for the examples cited in this chapter as an assist to the reader in carrying out the processes required to systematically focus the evaluation.

CHAPTER 3

PLANNING AND IMPLEMENTING THE EVALUATION

The actual evaluation of a project is but one part of the total program effort, and should be planned so that disruption to the ongoing program is kept to a minimum. The procedures that are planned should be realistic, given the constraints of resources available and needs of stakeholders. If there are circumstances that are likely to interfere with the collection of valid, reliable data using a particular instrument, alternative methods should be considered and attempts should be made to alter the circumstances or the instrument. Attention to assessment instruments is particularly critical for secondary/transition projects because many instruments commonly used in the general population may not be suitable for handicapped persons. Chapter 3 will discuss evaluation approaches, management plans, and data collection/analysis procedures (Figure 1) with these parameters in mind.

A. Determining Evaluation Approach/Method

There are a large number of approaches to evaluation and it is beyond the scope of this document to discuss all of them. Many evaluations can be characterized as either formative or summative evaluations as originally proposed by Scriven (1967). Formative evaluation is concerned with determining the worth of a project while in process so that it can be modified or revised as needed. In addition, the details of formative evaluation can be extremely valuable for replication purposes. Summative evaluation is concerned with determining the overall worth of a project after it has been sufficiently developed. Many of the same data collection methods, instruments, and data analysis techniques can be used for both types of evaluations. Often, only the purposes of the evaluation (e.g., program improvement versus replication), the timing of the evaluation (e.g., early on versus near project completion) and the audiences for reporting (e.g., project staff versus external decision-makers) differ between formative and summative evaluation efforts.

Most frequently, formative evaluation focuses on describing the actual treatment and the implementation of the objectives, processes, and components of the project in the early stages of project activity. It is a

process analysis of the organization and service delivery components of the project. Formative evaluation is concerned with whether the project was properly implemented with respect to, for example, services provided to transition project clients. Examples of formative evaluation questions are: Are there discrepancies between the expenditures and the project budget? Has the project been staffed appropriately? This type of evaluation needs input from the internal project staff who are familiar with the day-to-day operations of the project, and may even be conducted by project staff.

Summative evaluation continues where formative evaluation ends. It is usually concerned with the impact or effects resulting from project services or activities. Examples of summative evaluation questions are: How much did the project improve the independent living skills of handicapped clients? How many more clients gained competitive employment positions as a result of the project? Summative evaluations generally involve more rigor than formative evaluations since you need to make sure any impacts discovered are a result of the project and not due to outside influences such as favorable change in local economic conditions. This type of evaluation generally is conducted by an independent or external evaluator.

Both evaluation approaches are important and complement one another. For example, a summative evaluation may indicate no impact on project clients. The formative evaluation may indicate that some service delivery components of the project were not properly implemented and thus suggest a reason for the lack of project impact.

In some instances, projects elect to conduct both formative and summative evaluations. Beyond providing impact information for external audiences, they also want to analyze what has/has not worked in the delivery of the program with the goal of making decisions to improve the program. In addition, projects may want to document their ongoing activities in order to initiate similar programs throughout their communities to other agencies or for broader dissemination. As implied in Chapter 1, there is a need to "sell" the public on the value of programs that work. Formative/summative evaluation facilitates this.

In a multi-year project, for example, a formative evaluation may be conducted during each year of the project. The formative measures may be used to:

- Provide evidence of project implementation,
- Determine discrepancies between project operations and project plans, and
- Partially satisfy evaluation requirements of the funding agency.

The target audiences for this portion of the evaluation may include:

- Office of Special Education and Rehabilitative Services, U.S. Department of Education,
- Handicapped education association personnel,
- Special education personnel,
- Rehabilitative services personnel,
- Vocational education personnel,
- Project staff,
- Clients, and
- Client parents/guardians.

The focus may be on project improvement in the early stages and on project refinement in the later stages. The evaluation may be conducted internally under the direction of the Project Coordinator and may be augmented by an external evaluator each year.

The second component of the evaluation approach is generally a summative evaluation conducted by an external evaluator during the third year of the project. The focus of the summative evaluation would be estimating project impact. The evaluation results also can be used to:

- Produce data to support continued project funding at the local level, and
- Partially satisfy evaluation requirements of the funding agency.

The audiences to be addressed by the results of this summative evaluation may include:

- Office of Special Education and Rehabilitative Services, U.S. Department of Education,
- LEA (local education agency) policymakers,
- Clients, and
- Future client parents/guardians.

Additional evaluation approaches are discussed in several of the annotated bibliographies found in Appendix A.

B. Developing an Evaluation Management Plan

An evaluation management plan is a tool which can be used to monitor the conduct of evaluation tasks and activities. Much of the information for this plan will be available from the previous steps in the evaluation process (e.g., identification of project objectives and related evaluation questions). Other information will have to be gathered and incorporated into the plan (e.g., evaluation activities associated with each evaluation question). The evaluation plan should contain the following:

- Project objectives (e.g., place clients in competitive employment),
- Evaluation questions linked to each project objective (e.g., to what degree have clients been successfully placed in competitive employment?),
- Evaluation activities related to each evaluation question (e.g., summarize the match of clients' interest and skills with the job requirements),
- Staff responsibilities for each evaluation activity (e.g., project coordinator and evaluator),
- Completion dates (milestones) for each evaluation activity,
- Data sources for each evaluation activity (e.g., placement records, job skill analysis forms, and job analysis forms), and
- Criteria for the successful completion of each evaluation activity (e.g., proportion of clients placed in jobs which match their top five skill and interest areas).

The above list of information would be provided for each project objective.

Gantt Charts could also be developed to indicate the functional and time interrelationships among the evaluation activities. When properly developed these charts indicate the extent to which the initiation of a particular evaluation activity was dependent upon the successful completion of one or more other evaluation activities.

The Gantt Chart is perhaps the most commonly used time-oriented control device. It not only provides the developer of the evaluation with a tool for viewing the overall schedules, including reporting obligations, but, of equal importance, the chart also provides standards against which actual achievements can be compared as work progresses. An example of a generic Gantt Chart is provided in Figure 2. The necessary requirements for construction of a Gantt Chart are:

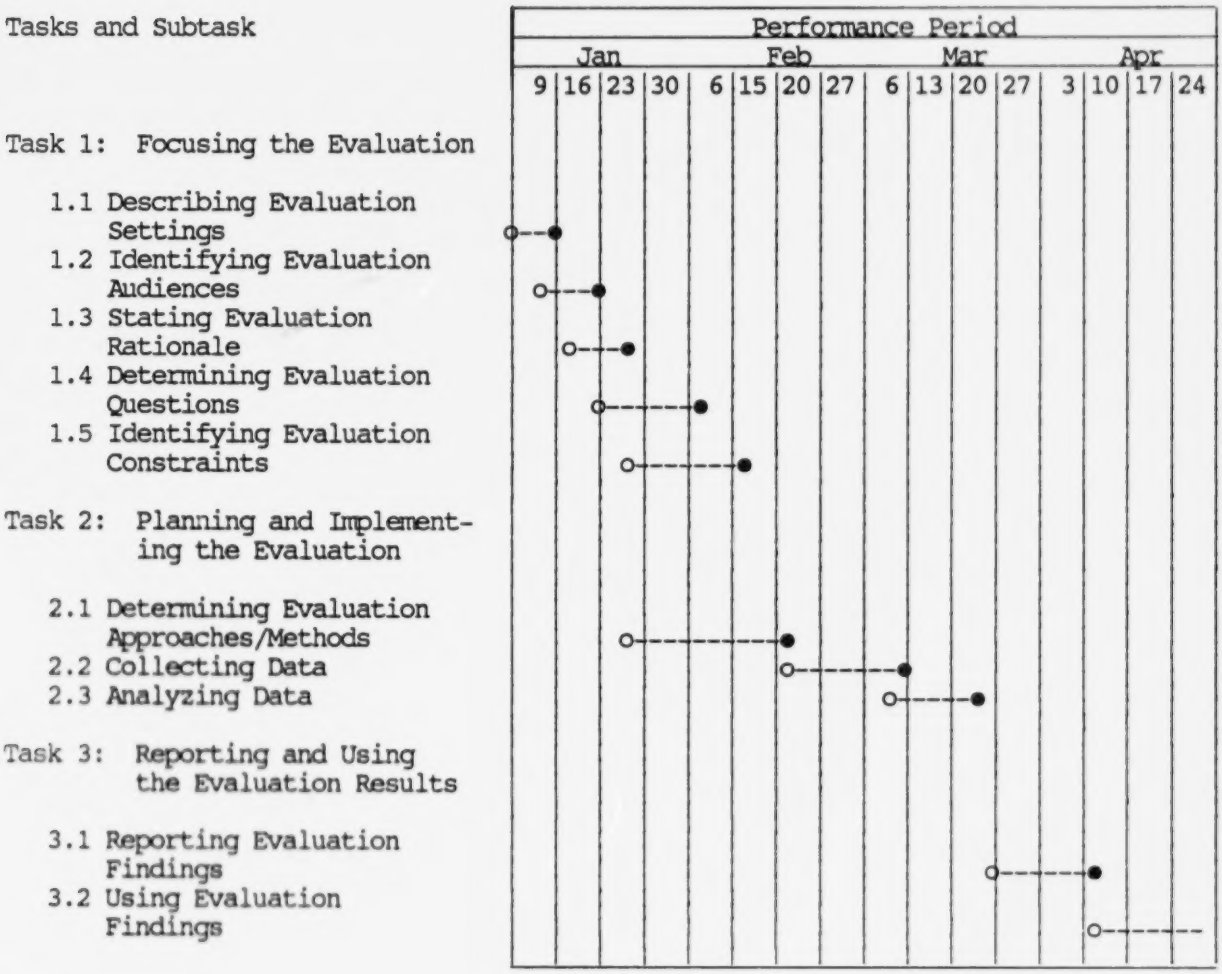
- Identification of subtasks
- Numbering (coding) of subtasks
- Logical scheduling of subtasks

These requirements should flow easily from a well developed work plan. The chart contributes directly to the control function when the variable of concern is time/schedule. Indirect contribution is made by Gantt Charts to the control of cost/personnel utilization.

In summary, the evaluation management plan is a tool to help ensure that each evaluation question is properly addressed by specified evaluation activities carried out by specified staff within a specified time frame.

Figure 2

Generic Gantt Chart


Tasks and Subtask
Performance Period
Jan
Feb
Mar
Apr
9 16 23 30 6 15 20 27 6 13 20 27 3 10 17 24
Task 1: Focusing the Evaluation
1.1 Describing Evaluation Settings
1.2 Identifying Evaluation Audiences
1.3 Stating Evaluation Rationale
1.4 Determining Evaluation Questions
1.5 Identifying Evaluation Constraints
Task 2: Planning and Implementing the Evaluation
2.1 Determining Evaluation Approaches/Methods
2.2 Collecting Data
2.3 Analyzing Data
Task 3: Reporting and Using the Evaluation Results
3.1 Reporting Evaluation Findings
3.2 Using Evaluation Findings

○ Task initiation
● Task completion

EVALUATION: MANAGEMENT

The Fort Collins project developed the following evaluation management plan for a formative evaluation question.

TRANSITION TO COMMUNITY EMPLOYMENT
FORMATIVE EVALUATION
TASK 5.0

TASK: Project dissemination within western region of U.S.
RESPONSIBLE PERSONS: Project director, project consultants
METHOD FOR ASSESSMENT: Workshop evaluation forms and participant questionnaire.
CRITERIA FOR COMPLETION: An average rating by workshop participants of 4.0+ (on a 5 point scale).
AUDIENCES: OSERS, direct service and administrative personnel from public school and postsecondary vocational programs, university faculty from human service fields, representatives from state education, vocational, and rehabilitation systems.
DISSEMINATION METHOD: Third year workshop and accompanying written materials.
DUE DATE: Summer, 1988
SUB TASKS:

5.1 Document project components for publication and dissemination.
5.2 Workshop promotion.
5.3 Workshop logistical preparations.
5.4 Establish linkages with potential replication sites for on-going interaction and consultation.

C. Planning and Executing Data Collection Procedures

The resources available to evaluate most transition projects are rather limited and hence extensive data collection activities are, in most instances, infeasible. Consequently, the evaluation strategy should concern itself with collecting readily available data on project implementation and effectiveness to the extent feasible to adequately gauge the success of the transition project. Administrative records are readily available. Interviews, checklists, rating forms, and short questionnaires provide other easy and economical ways to collect data for either a formative or summative evaluation.

Types of administrative data and other information that the project will generate should be specified at the outset as part of its normal record-keeping. Linking these data to the goals and the objectives of the project will ensure that the project evaluators will have at least some relevant data to work with in carrying out a transition project evaluation.

Characteristics of good data collection procedures are:

- Flexible and adaptable,
- Unobtrusiveness and appropriateness (e.g., proper reading level) for the intended audience,
- Reliability (accurate measurement), and
- Validity (measuring what you intended to measure).

The data collection procedures should be developed so that each data element has a specific use in the evaluation plan. Information for which there is no advance use should not be collected.

Most transition projects are not so large as to require sampling of clients; however, there are exceptions. The North Dakota project currently has in excess of 2,000 clients. Surveying all clients in this project would be neither necessary nor cost effective. Hence, collecting data from a probability sample of clients rather than all clients would be appropriate for this project. Similarly, projects that encounter cost or time constraints may need to consider utilizing a sample of clients in lieu of a complete census of clients. Personnel collecting the data should be trained to select the sample in accordance with a pre-determined sampling protocol (in most cases a simple random sample will suffice) and properly administer the instruments in order to ensure that the collected data are reliable and valid.

The data collection activities must be closely monitored in order to determine that proper procedures are being followed and to ensure that the data are being collected in a timely and cost effective manner. In particular, the response rates should be high enough to guard against bias due to non-response. One technique which is frequently employed when response rates are unacceptably low (say less than 75%) is to exert a special effort to secure data from a sample of non-respondents and determine whether they differ substantially from the respondents. The data instruments should be carefully checked for missing items and inconsistent responses among items. If the missing items are critical with respect to

the evaluation plan, then it may be necessary to go back to the data source (e.g., the client) for the missing information. Critical inconsistencies could also be resolved in this manner. Other inconsistencies may be resolved by logical editing rules. Data entered into a computer file should at least be partially verified to reduce data entry errors.

DATA COLLECTION: STRATEGY

In the Indiana project, the formative evaluation component will examine the adequacy of the project in meeting client needs and the relation between intended and actual project operations; the summative component will examine project impact and efficiency. All data listed below will be readily available; much of it is available from existing project records.

Data regarding adequacy will consist of semi-structured interviews with staff regarding perceptions of training and opinions of changes/modifications.

Data regarding relation between action/ intended operation will consist of observations of changes in learner/ instructor behaviors; structured observation regarding classroom composition/climate/activities; standard and criterion-referenced measures of increases in instructor/ client knowledge; ratings of client performance (work attitudes/behaviors/work and interpersonal skills); document analysis of IEPs and IHPs.

Data regarding impact on clients will consist of interviews with clients/parents/ employers regarding satisfaction; interviews with agency personnel regarding inservice training and linkages and methods for maintaining/expanding linkages; appropriateness of linkages; measures of satisfaction with program operation; collection and analysis of demographic data about number of placements in competitive employment; number of clients placed; clients' handicaps; number of clients still in competitive employment at end of year; nature of work in each placement; hours worked per client; wages earned per client; number of job terminations; and reasons for job terminations.

Data regarding cost benefit analysis will consist of program costs (number of training hours per client; fiscal expenditures associated with training hours; number of training hours per client on job site; fiscal expenditures associated with training on job site); length of on-site support; number of follow-up contacts; and fiscal expenditures associated with on-site support and follow-up program benefits (wages earned, taxes paid, savings in SSI benefits from placement in competitive employment).

D. Analyzing Data

Many evaluation questions can be addressed by a few simple descriptive statistics. This is especially true of formative evaluations where the transition program components and services received by the program clients are being described. For example, the client population can be described in terms of average age, average education level, and average aptitude or achievement score levels. Likewise, the program components can be described in terms of the number of clients exposed to various transition program components and the frequency with which they are being served by those components.

Data analyses associated with summative evaluations are more complex since you are trying to measure the impact of the project on client outcomes. The analyses must rule out competing explanations (e.g., improved local economic conditions) if we are to attribute improved client outcomes to the transition project. The best way to estimate the effect of a transition project is to randomly assign potential clients to the transition project and to a "no-treatment" control group, and then compare the two groups on outcome measures (e.g., number gainfully employed) after project clients complete the program. This usually is not possible because of practical or ethical considerations. The next best method is to collect data on client outcome measures before and after exposure to the transition project and compare the client changes to changes for a similar available (comparison) group that was not exposed to the transition project. These are called nonequivalent control group designs. If data on a similar group are not available, descriptive needs data may exist from local/state/national assessments which can be used for comparison purposes.

There are statistical techniques such as regression analysis that allow for the estimation of transition project impacts by comparing the outcomes for the transition project clients and the nonequivalent control group members. There are a number of technicalities that must be considered in these comparative analyses. For example, the sample sizes must be large enough to consistently detect a reasonably sized impact of the transition project. Also, if there are known differences between the transition project clients and the control, or comparison, group members, then these differences must be measured and incorporated into the regression analyses

so that the transition project impact estimate can be adjusted for those differences. If the data warrant complex analyses, and the evaluation staff are not firmly grounded in these techniques, the assistance of an expert consultant should be considered.

Microcomputers can be useful in analyzing the collected data. Software is available to generate the descriptive statistics associated with a formative evaluation and the regression analyses associated with a summative evaluation.

References for basic analysis procedures are given in Appendix A.

Worksheets for Chapter 3 may be found in Appendix C.

CHAPTER 4

REPORTING AND USING THE EVALUATION RESULTS

A carefully planned, meticulously executed evaluation will, throughout its implementation, have an underlying purpose - that of presenting clear, interpretable program results to stakeholders. The early-on identification of evaluation audiences, their roles, biases, and information needs will facilitate a cogent presentation of the results. The forms in which results are presented will reflect thoughtful consideration of the audiences, and the outcomes that presenters hope to achieve through the dissemination of information to each audience. Desirable outcomes may include:

- Increased (or at least sustained) investment in the program,
- Increased effectiveness and efficiency within the program,
- Increased visibility of the program to motivate replication beyond the immediate site or efforts,
- Greater understanding on the part of parents and/or program participants, and
- A demonstration of quality responsiveness to requirements for accountability.

In this chapter we will discuss the planning and reporting of evaluation results, and how those results may be used by program planners, supporters, and other interested parties. A related worksheet is presented in Appendix D.

A. Planning Presentation of Results

In order to insure clearly stated, well-organized evaluation reports, a planning stage should precede the actual writing of the report. Once critical elements of the report are identified, outlined, and reviewed by a team of program representatives, the actual writing can begin. Planning for the presentation of results should include

1. Defining the Purpose of Your Evaluation for Your Audiences

Your evaluation questions facilitate this, with a description of how your data collection and summary methods answer those questions.

2. Identifying Audiences

Identify those audiences who will be interested in your findings, and those audiences you will want to interest in your results. Details of

the report, kinds of graphics and charts displayed, and language level are likely to vary according to the needs of the audiences. Major decision makers are likely to want more details than others. For example, program administrators and supervisors need to know if project goals and objectives have been met, and a clear description of program processes/procedures. Those providing program funding will likely require the most detail in both the actual report and in the executive summary. Curriculum specialists need to know if materials and methods have been appropriate to meet goals and objectives. Advisory boards want to know how well the program is functioning, its areas of strength and weakness, what is necessary to maintain the strengths and improve the areas of weakness. The news media should receive accurate, easy to understand data displays with appropriate interpretations based on the presented data. Participants/ students need to know their progress in meeting individual objectives.

3. Selecting the Technique for Presenting Your Data

Descriptive data include average responses, range of responses, frequency distributions, percent of responses in different categories, correlation coefficients to show the degree of relationship between two variables, and summaries of narrative data from interviews, questionnaires or anecdotal records. Comparative data include such statistical methods as chi-square, t-tests, analysis of variance, and multiple regression. Most importantly, the data must be presented so that the audience can understand it. Cross-check any subjective results with records, if possible, and through discussion with appropriate others involved in the program. This can lend credibility to the conclusions and help ensure that recommendations will be accepted.

4. Identifying the Method(s) You Will Use to Communicate Your Evaluation Results

Different audiences are able to use different types of reporting more effectively. Written reports, oral reports, reports primarily graphic in nature, slide/tape presentations, and combinations of the foregoing are all likely to be used, depending on the respective audience addressed. Each type of report has advantages and disadvantages: there are ostensibly no time constraints on written reports and data can be referred to as needed; however, there is a heavy dependence on writing and reading skills. Credibility and verbal skills of the presenter are important for oral

reports, which do provide for immediate feedback and clarification of audience questions. Oral reports should include specific sections in which the particular audience is interested. Generally oral reports are constrained by time and the amount of information presented may be limited.

Tables and figures should simplify and clarify information. When information is extensive, data tables and graphs or figures provide an effective summary. Both should be labelled clearly, described in text or explained orally. Figures or graphs are generally used to quickly draw the audiences attention to a specific finding while tables provide detailed back-up data for further scrutiny and secondary analyses.

5. Timing the Delivery of Your Results

If information is to be acted upon, it must be timely. Audiences have their own schedule requirements; some may need reports at intervals throughout the program, while others may require only the final report. Periodic communication with audience representatives and experience with program schedules, fiscal years, and decision cycles tell you when individuals and groups need information. If a particular audience will want an oral report, but will not be convening until several weeks after the evaluation report is written, it is advisable to provide an initial written summary to emphasize the importance of the information.

B. Writing the Report

Report planning is usually a group endeavor with the goal of collecting all relevant information and opinions concerning the program. Actual writing, however, is frequently assigned to one person, with assistance from consultants/reviewers as needed. This approach tends to produce a more coherent, stylistically smooth report. When there are multiple writers, it is advisable to secure the services of an editor or have one person on the writing team do a final edit. This is the case whether there is one or more multiple reports to be produced.

Reports may be comprehensive or limited to a specific area. The typical kinds of reports are:

- Internal reports, sometimes written only for the files and used to further the evaluation process (e.g., questionnaire data and/or interpretation);
- Progress reports with information on significant milestones;

- Interim reports focusing on events within an interval of time; and
- Concluding reports that occur at the end of a program or a major interval (e.g., end of first year). Types of concluding reports are:
  - A main report containing comprehensive information about purposes, procedures, findings, and conclusions;
  - An Executive Summary highlighting conclusions and summarizing more detailed information; these are often presented on a colored paper for quick access, and
  - Technical report containing detailed information about data collection strategies and analysis procedures, as well as, program information found in the main report.

In addition,

- Follow-up reports may be required for conferences, panels, or other types of meetings.
- Announcements/press releases are a type of report that usually highlight key decisions.

Figure 3 provides a basic evaluation report outline that should be tailored to meet individual audience needs and interests.

The use of graphics within a report can enrich communication but if not used correctly can lead to false conclusions. Graphics should be simple, with legible print, whether projected or on paper copy. Interest and meaning can be added by using symbols, e.g., dollar signs, profiles of faces; shading separation and color can highlight and facilitate comparisons. Perspective can enliven simple bar graphs but is difficult to draw correctly.

C. Using the Evaluation Results

The production of a final evaluation report does not usually end the responsibilities of program personnel. Disseminating the program results is a critical link in the life cycle of a program, and very often it also serves as the initial link in a chain of program continuation/refunding. The audiences for many educational program evaluation reports are narrowly focused at the local school district level, with a school board, local superintendent, and administrators serving as the primary audiences. For

Figure 3

Sample Evaluation Report Outline

I. Introduction

- A. Program description
  - 1. Background
  - 2. Objectives
- B. Purpose of the evaluation
  - 1. Decisions to be made (e.g., program expansion, program improvement, etc.) and audience(s).
  - 2. Evaluation questions
  - 3. Limitations and caveats

II. Procedures

- A. Evaluation design(s) chosen (may be different for different questions) and limitations of the design(s)
- B. Nature of sample and sampling procedures
- C. Information collection techniques
  - 1. Instrumentation (observation schedules, test, survey, etc.)
  - 2. Reliability and validity of instruments
  - 3. Field activities for collecting information
- D. Data Analysis
  - 1. Choice of technique (e.g., Analysis of Variance, chi-square, etc.)
  - 2. Rationale for choice of technique

III. Results and Discussion of Results

- A. Interpretation of data analysis results relevant to each evaluation question
- B. Constraints under which the study was done

IV. Conclusions and Recommendations

V. Appendices

Include copies of instruments used and any other documents important to understanding the evaluation.

Executive Summary

For most reports, an executive summary containing more detail than the summary in the report but still a very condensed version of the report is desirable.

large scale national programs (e.g., Chapter 1), aggregated data are compiled for congressional review. The secondary/transition projects are very unlike the aforementioned programs. In many instances they serve historically neglected persons in our society. Their newness makes them innovative and their outcomes ultimately open doors to employment and higher education for handicapped persons. Benefits accrue to the participants and spill over into the larger community. Through secondary/transition programs the handicapped become contributing citizens with self-respect, the public gains a better understanding of the handicapped persons' capabilities, adaptive equipment becomes more commonplace, and agencies learn to work together for common goals. Evaluation results should be used to further the above outcomes, and the results should be examined, analyzed, and interpreted to improve the programs so the above outcomes automatically multiply as byproducts of successful programs. Distinguishing between internal and external uses of evaluation results is essential when planning for dissemination of results.

Internal uses of evaluation results are administrative and procedural. Information should be provided for administrators to use in decision-making, program planning, and problem solving. Which program component has the best cost/benefit ratio? When is the optimum time to approach employers in the local community? How can transportation be secured for students in rural areas? What incentives can be used to maintain trainers, and how can parents become involved so that they promote the independence rather than dependence of their handicapped sons and daughters? How can staff participate in the development of the management plan so they feel some ownership and are responsive to deliverable dates and milestones?

Procedural use of evaluation results refers to examining results with the goal of identifying program processes that can be improved, as well as those that are effective and need to be maintained or refined. Do longer training periods result in more longevity on the job? Does one type of adaptive equipment effect better skill transfer than another type? Does group counseling result in more positive social behavior than individual counseling? Do monthly interagency meetings promote program continuity better than newsletters and/or bi-monthly meetings? These types of questions are best answered by the teachers, trainers, and participants, i.e., those who are most familiar with the day-to-day conduct of the program.

External uses of evaluation results focus on providing information, changing attitudes and perceptions, encouraging acceptance and replication of the program, and meeting requirements mandated by funding sources. Clear, concise, and technically and grammatically accurate presentation of results enables stakeholders to have confidence in the information and to more clearly understand and interpret performance to the community beyond the stakeholders. Recommendations for external audiences should be tied to data that support the recommendations, and linkages should be established among evaluation, questions, data, information, and plausible action responses. Stakeholder biases need to be acknowledged in anticipating positive or negative reactions to proposed programmatic changes, so arguments that may be counter to the biases can be persuasively presented. The potential for publishing the results for an effective, well-conducted project in professional journals, newsletters and newspapers should be explored as part of the dissemination effort. Requests from readers for additional information can result in replication/adoption of the program in other locations.

Because state and local funding sources are often constrained by a multiplicity of needs, it is critical that federal support for secondary/transition projects continue until other funding sources are located. Thus the program reports for accountability are as important as others we have discussed. The Project Officer, even though perhaps geographically distant from your project, should be apprised of your project's progress. The Project Officer can be one of the program's strongest advocates, if kept informed. Copies of interim reports, press releases, and other documents are appropriate communication devices.

A statement from one of the Transition Institute's researchers is an appropriate end to this Handbook:

"Evaluation responsibility is communication responsibility." [1]

1/ Stake, R.E. (1973), Evaluation Design, Instrumentation, Data Collection, and Analysis of Data in Educational Evaluation: Theory and Practice. In R. Worthen and R. Sanders, (Eds.), Educational Evaluation: Theory and Practice. Belmont, CA: Wadsworth Publishing, p.315.

Appendix A

Annotated Bibliography

Annotated Bibliography

Borich, G.D. and Jemelka, R.P. (1982). Programs and Systems: An Evaluation Perspective. New York: Academic Press.

This book is about decisions, values, and systems. It is about how these concepts come together to create a network of ideas, activities, and responsibilities for program evaluation. Most of all, it is about the role that values play in binding together this network and in providing a standard for both planning and evaluating programs. This book is written for a broad array of readers interested in program planning, evaluation, or systems.

Brinkerhoff, R.O., Brethower, D.M., Hluchyj, T., and Nowakowaski, J.R. (1983). Program Evaluation: A Practitioner's Guide for Trainers and Educators (Sourcebook). Boston: Kluwer-Nijhoff Publishing.

The Sourcebook is part of a package developed by the Evaluation Training Consortium (ETC) project at the Evaluation Center, Western Michigan University. The ETC project was funded by the U.S. Office of Special Education from 1972 to 1982 to develop program evaluation procedures for use by teacher educators. The Sourcebook contains chapters on guidelines, resources, and references for each of seven key evaluation functions. The presentation requires some knowledge of evaluation methodology and terminology and lacks an index to topical areas. The other two documents in the series include a collection of 12 evaluation stories (Casebook) and a programmed set of directions, worksheets, examples, and checklists to help design an evaluation (Design Manual).

Buros, O.K. (Ed.) (1938, 1940, 1949, 1953, 1965, 1972, 1980). Mental Measurments Yearbooks. Highland Park, NJ: Gryphon Press.

A series of eight yearbooks containing critical reviews of tests which are "designed to assist test users in education, industry, psychiatry, and psychology to locate, choose, and use tests with greater ease and discrimination." Each Yearbook contains up-to-date, comprehensive bibliographies of tests published recently in English-speaking countries, plus critical test reviews by measurement and other experts. Comprehensive test entries include listing of relevant test references in books, journals, and doctoral dissertations. Tests are grouped by function with references by author(s), title, publisher, and subject matter area.

Buros, O.K (Ed.) (1974). Tests in Print II. Highland Park, NJ: Gryphon Press.

This book presents a comprehensive bibliography of all known tests published for use with English-speaking subjects and currently in printing. There are 2467 test entries classified according to functional use (e.g., achievement batteries, personality tests, vocational tests). Tests also are referenced by publisher, title, and author(s), with a scanning index by subject matter area.

Fink, A. and Kosecoff, J. (1980). How To: Evaluate Education Programs (A Compilation of Ideas and Methods That Work). Washington, DC: Capital Publications.

This book contains many articles previously published in Capital Publications monthly newsletter, "How To Evaluate Education Programs." It also includes chapters on "How To Set Evaluation Standards," How to Choose An Evaluation Design, " and "How To Prove a Program Works." Some of the more recent issues of the newsletter also include articles relevant to the evaluation of transition intervention projects as follows:

- "How to Conduct a Survey" (May, 1981, Chapter 44)

  This issue discusses what a survey is, the different types of surveys, survey sampling considerations, hints for designing and administering a survey, survey pitfalls, and survey costs.

- "How to Plan An Evaluation (November, 1981, Chapter 51)

  This issue presents a case study example of planning an evaluation, including the development of evaluation questions and standards, the evaluation design and sample, and data collection (including a data collection plan).

- "How to Tell If A Program Meets Its Goals" (May, 1982, Chapter 57)

  This issue defines goals, objectives and their various types (cognitive, affective, psychomotor), and setting standards.

- "How To Figure Costs For Evaluation Studies" (September, 1982, Chapter 61)

  This issue shows how to prepare an evaluation budget, including detail information.

- "How to Evaluate In Action" (April, 1984)

  This issue presents some evaluation "do's" and a "don't" based on a previous evaluation experience. The "do's" include involving program staff, flexibility, expecting the unexpected, and multiple reporting audiences. The "don't" is to not expect "everyone to care about the evaluation."

Joint Committee on Standards for Educational Evaluation (1984). Standards for Evaluations of Educational Programs, Projects, and Materials. New York: McGraw-Hill Book Company.

This book represents the results by representatives of twelve professional research and education organizations to develop a set of rigorous and useful standards for the evaluation of educational programs, projects, and materials. The resulting standards are referenced in two different ways: according to four evaluation standards (utility, feasibility, propriety,

and accuracy) or ten functional groupings (administering evaluation, analyzing information, budgeting evaluation, deciding whether to evaluate, defining the evaluation problem, designing evaluation, collecting information, contracting evaluation, reporting evaluation, and staffing evaluation).

Morris, L. L. (1978). Program Evaluation Kit. Beverly Hills: Sage.

The Program Evaluation Kit is a set of books intended to assist people who are conducting evaluations of educational programs. The scope of its potential use is broad. Because it comprises a set of step-by-step procedural guides, the kit can advise a person conducting elaborate evaluations or it can help people as they gather, analyze, and interpret information. The kit also introduces and explains concepts and vocabulary common to evaluation. It is designed to be useful to people with extensive experience in evaluation as well as the novice. The kit consists of the following eight books.

1. The Evaluator's Handbook
2. How to Deal with Goals and Objectives
3. How to Design a Program Evaluation
4. How to Measure Program Implementation
5. How to Measure Attitudes
6. How to Measure Achievement
7. How to Calculate Statistics
8. How to Present an Evaluation Report

Nowakowaki, J., Bunda, M.A., Working, R., Bernacki, G., and Harrington, P. (1985). A Handbook of Educational Variables: A Guide to Evaluation. Boston: Kluwer-Nijhoff Publishing.

This handbook provides a comprehensive and well-organized set of questions and variables that might be appropriately addressed in evaluations of a wide range of educational programs and services. It is well grounded in both educational practice and educational theory. The level of language is oriented toward those who might be involved in planning an educational evaluation.

Pietro, D.S. (Ed.) (1984). Evaluation Sourcebook for Private and Voluntary Organizations. New York: American Council of Voluntary Agencies for Foreign Service.

This Sourcebook is a practical guide for selecting appropriate tools for field-based program evaluation. It was written from a collaborative effort of private and voluntary organization practitioners experienced in evaluation, and is designed for policy-makers who need to coordinate and utilize evaluations. Section One serves as an introduction to evaluation, Section Two is a "how-to" section (covering topics such as goal-based evaluation and goal-free evaluation), and Section Three discusses what to do when you need help.

Pitz, G.F. and McKillip, J. (1984). Decision Analysis for Program Evaluators. Beverly Hills: Sage.

This book describes in detail techniques that can be used for aiding decisions in the context of a program evaluation. The book is written for people who are unfamiliar with decision analysis. The authors assume only an ability to work with simple equations, equivalent to the skills required for a beginning graduate-level course in statistics (no knowledge of statistics is necessary). Technical details which are unnecessary for someone concerned only with the application of decision analysis have been omitted. A short glossary is provided for a quick reference to the most important technical terms.

Rutman, L. and Mowbray, G. (1983). Understanding Program Evaluation. Beverly Hills Sage.

This is a guidebook to better management through the use of program evaluation. It is directed to two primary audiences: (1) managers in charge of national, state, and local social programs, and (2) students who one day may become program managers. It provides cases and questions in the appendix to provide guidance for planning and simulating evaluations. The chapters present information on the purposes of evaluation, steps in the evaluation process, planning the evaluation, measurement, research design, and using evaluations for decision-making.

Sichel, J. L. (1982). Program Evaluation Guidelines: A Research Handbook for Agency Personnel: New York: Human Sciences Press.

This handbook is written for the nonresearcher who is faced with conducting an evaluation of his/her program. It is a small, informal book which addresses practical issues - how to frame guiding questions, how to define the appropriate scope for an evaluation and "how to make sure you'll have something of use when you're done."

Scriven, M. (1967). "The Methodology of Evaluation." In Tyler, R. W., Gange, R. M. and Scriven, M. Perspective of Curriculum Evaluation. AERA Monograph 1. Chicago: Rand McNally and Company.

This paper defines formative and summative evaluation and discusses the goals of evaluation versus the roles of evaluation. The paper also addresses amateur versus professional evaluation, evaluation studies versus process studies, evaluation versus estimation of goal achievement, intrinsic evaluation versus pay-off evaluation, some practical suggestions for combination formative/summative (hybrid) evaluations, criteria of educational achievement for evaluation studies, values and costs, and a number of other evaluation topics.

Scriven, M. (1973), Goal-Free Evaluation. In E. R. House (Ed.), School Evaluation: The Politics and Process. Berkeley: McCutchan.

Scriven discusses goal-free evaluation in the contents of summative and formative evaluation methods. His approach is unique, in that he utilizes a scenerio of an initial meeting between a client and a goal-free evaluator to illustrate his points. He provides additional explanation following the presumed dialogue.

Scriven, M. (1981). Evalution Thesaurus. Inverness, California: Edgepress.

This book may serve as a kind of minature text-cum-reference-guide to the field of evaluation. It is a smaller and less expensive guide than the encyclopedia, yet more comprehensive than glossaries since it is not restricted simply to educational evaluation or to program evaluation. It contains practical suggestions and procedures, comments and criticisms, as well as definitions and distinctions.

Smith, N. L. (Ed.) (1981). New Techniques for Evaluation. Beverly Hills: Sage.

This book provides an introduction to techniques that will enable the evaluator to deal with research, management, policy, value, and economic questions. The authors have tried to avoid being theoretical and abstract in favor of offering concrete alternatives to the practicing evaluator. The book contains five chapters, each dealing with a different technique or set of techniques for use in evaluation. Numerous examples are presented.

Smith, N. L. (Ed.) (1982). Communication Strategies in Evaluation. Beverly Hills: Sage.

This book is about communication in evaluation and the ways that evaluation information can be communicated with greater clarity, impact, and variety. The purpose of this volume is to change the way evaluators think about the role of communication in evaluation as well as to change the nature of the communications they produce. Alternative techniques are presented, including: research briefs, graphic display procedures, stem and leaf displays, operational network displays, geographic displays, oral policy briefings, briefing panel presentations, adversary hearings, committee hearings, and television presentations.

Struening, E. L. and Guttentag, M. (Ed.) (1975). Handbook of Evaluation Research - Volumes 1 & 2. Beverly Hills: Sage.

One purpose of the Handbook is to provide evaluators with a sample of experts with whom they can communicate as they develop the crucial steps of their studies. More specifically, the Handbook provides the type of information that should lead to the consideration of alternative approaches to evaluation. The Handbook is also designed to serve as a textbook for courses in evaluation at the graduate level. The first volume emphasizes strategies and methods of evaluation while the second volume reviews the literature of selected content areas.

Stufflebeam, D. K. (1973). "An Introduction to the PDK Book: Educational Evaluation and Decision-Making." An address delivered at the Eleventh Annual PDK (Phi Delta Kappa) Symposium on Educational Research, Ohio State University, June 24, 1970. Reprinted in Worthen, B. R. and Sanders, J. R. Educational Evaluation: Theory and Practice. Worthington, Ohio: Charles A. Jones Publishing Company.

This paper presents Stufflebeam's CIPP Evaluation Model in its formative conception. This discussion includes a definition of evaluation and the terms implied in the definition, decision settings, the four types of decisions and the types of evaluation corresponding to them (Context, Input, Process and Product).

Tallmadge, G. K. (1977). The Joint Dissemination Review Panel Ideabook. Washington, D.C.: U. S. Government Printing Office.

The Ideabook presents practical procedures for preparing presentations for the Joint Dissemination Review Panel (JDRP) process. A new volume is expected in late 1986.

Tuckman, B. W. (1985). Evaluating Instructional Programs. Boston: Allyn & Bacon.

This book was written to provide the evaluator with the information and techniques to carry out instructional program evaluations in the schools. It has been written to be both practical and understandable. The author presents new and innovative approaches to evaluation, operational guidelines for doing formative, summative and ex post facto evaluations, strategies for qualitative evaluations, and suggestions for assessing teaching. Case studies are provided as well.

Udinsky, B. F., Osterlind, S. J., and Lynch, S. W. (1981). Evaluation Resource Handbook: Gathering, Analyzing, Reporting Data. San Diego: EDITS.

This resource syllabus is directed towards providing student or practitioner with the tools necessary to implement evaluation. The thirty-nine articles contained in the book have been written around topics which are commonly used in gathering, analyzing, and reporting data. The articles are arranged into eight categories and are written in outline format. Many articles contain real-world examples for application purposes, and each one is followed by a selected bibliography. The format is designed for persons concerned with implementing the evaluation.

Wolf, R. M. (1984). Evaluation in Education. New York: Praeger.

This book attempts to furnish evaluation workers with a comprehensive, coherent, and integrated view of educational evaluation. It is intended to be highly practical, yet based on theory. There is a fair amount of "how to" in the book, along with a theoretical base for the applications.

Appendix B

Worksheets for Chapter 2

Describing the Evaluation Setting*

Project Clients

60-72 mainstreamed learning disabled students who are enrolled in the General College of the University of Minnesota; all are taking programs that require successful completion of writing courses or demonstration of writing proficiency.

Project Locale (Setting)

General College of the University of Minnesota, a 50-year-old open admissions college with a history of testing and disseminating curriculum for "by-passed" populations, such as learning disabled students.

Project Rationale/Goals & Objectives

A multi-media curriculum in writing has shown promise in helping LD students acquire writing skills needed to produce clear, coherent, and concise written pieces.

The project will develop test, implement, evaluate, and disseminate such a curriculum in order to increase the retention and academic performance levels of LD students. . .

Project Description (Components, Activities, Resources, Problems)

The project will 1) create a research base of relevant literature, 2) translate research into a multi-media writing curriculum, 3) identify 20-24 LD students to participate in the project, 4) implement the curriculum in 2 courses, 5) enroll participants in a career planning course, 6) evaluate project activities, 7) disseminate the evaluation results, and 8) plan for the following year based on research and evaluation results.

Project Timelines (To accomplish long & short term goals)

This a 36-month project. Interim reports will be available at completion of months 4, 8, 16, 20, 28, and 32; annual reports will be available at end of months 12 and 24; a final report will be available in month 36.

*NOTE: The description above is a very abbreviated example. A "real" description would be far more detailed.

Identifying Evaluation Audiences/Stakeholders

Key Audiences/Stakeholders	Audience/Stakeholder Roles	Audience/Stakeholder Information Needs	Audience/Stakeholder Biases
OSERS Staff	Funding agency	Progress of implementation Cost/expenditures General outcomes	Want data conducive to meta-evaluation Want Congress to think money well spent
LD Clients	Consumers of services	Individual progress and outcome General outcomes	Interested more in individual progress/success
Faculty/administrators at other postsecondary institutions	Potential replication sites; consumers of new knowledge	Content and strategies used curriculum What worked/didn't work Expenditures for tasks	Interested in adopting best parts of intervention at lowest possible cost Interest in theoretical basis for curriculum
Project Staff	Implementers of curriculum and project as a whole	Progress of implementation problems and successes Ongoing information on what seems to be working/not working Effectiveness of both curriculum and dissemination strategy	Want project as a whole to succeed Do not want that part of project he/she is responsible for to be evaluated as problem area

NOTE: The examples regarding information needs and stakeholder biases have been abbreviated in order to give several examples of stakeholders; however, the 4 groups of stakeholders cited here are but a part of a given project's potentia audiences/stakeholders.

Evaluation Rationale

Evaluation Purpose	Evaluation Constraints	Evaluation Products	Rank
To measure project effectiveness/outcomes	Limited budget for external indicator	2 annual reports plus project final report	1
To aid project implementation and improvement	Limited time to gather and review information/data on regular, frequent basis	Monthly progress report; 2 annual reports; interval memoranda/meetings re: problem areas	2
To meet funding agnecy requirement for evaluation	Limited personnel knowledgeable about evaluation	Monthly progress reports sent to agency 2 annual and 1 final report	4
To provide information to replication site	Limited time to develop separate document	Separate document designed specifically to describe project and provide information outcomes, costs, etc.	3

NOTE: These examples are not all inclusive of evaluation purposes, constraints, or products; these will of course vary from project to project.

Appendix C

Worksheets for Chapter 3

Additional Types of Data Collection Procedures

Accretion Analysis	Wear or accumulation on physical objects
Artifacts Analysis	By-products are observed
Case Studies	Characteristics of selected persons in a project
Panels, Hearings	Opinions; Ideas
Logs	Recorded behaviors and actions
Simulations	Person's behaviors in simulated settings
Sociograms	Preferences for friends, work and social relationships

Others: Systems Analysis, Advocate Teams, Judicial Review, Judgmental Ratings, Tests, Q-Sorts, Time Series Analysis

Evaluation Management Plan

Evaluation Activity	Due Date or Time Span	Staff Responsible for Each Activity	Criteria for Completion
Task 1: To develop survey instrument that identifies gaps in service delivery system	End of Month 3 of project	Research Assistant; Project Director	Agreement of project staff that instrument will obtain all necessary data/information
Task 2: . . .			
Task 3:			

Planning Guide for Data Collection and Analysis Procedures

Information Needs	Schedule (When, How, Where)	Sample (Kind and Size)	Respondents	Instrumentation	Analysis
Correlation between type of training and client satisfaction with placement	Months 10, 22, and 34; survey; at job site	All project clients (N=120)	Clients	Satisfaction survey	Correlation
Extent to which clients retain jobs	Month 36 of project; telephone contact	All project clients	Clients	Telephone survey	Percentages of 1st, 2nd, and 3rd year clients employed in original job at this time

Appendix D

Worksheets for Chapter 4

Reporting and Using Evaluation Results

Evaluation Question	Audience	Timelines/ Due Date	Data to Provide	Format and Presentation Methods	Utilization of Results
Was the project effective in placing clients in competitive employment?	OSERS Staff	Month 36	Percentage of clients placed in competitive employment	Final Report	Part of Report to Congress
	Clients/ Families	Month 36	Same as above	Letter to all clients/families	
	Replication sites	Month 36	Same as above	Workshop (with overheads) for potential replication sites	Decision to replicate/not replicate